

# Illinois TREES



black walnut *Juglans nigra*



one compound leaf



shingle oak *Quercus imbricaria*

three simple leaves



pecan *Carya illinoensis*

one compound leaf



shagbark hickory *Carya ovata*

one compound leaf



bur oak *Quercus macrocarpa*

three simple leaves



northern red oak *Quercus rubra*

three simple leaves



mockernut hickory *Carya tomentosa*

one compound leaf



swamp chestnut oak *Quercus michauxii*

three simple leaves



black oak *Quercus velutina*

three simple leaves



white oak *Quercus alba*

three simple leaves



pin oak *Quercus palustris*

three simple leaves



wild black cherry *Prunus serotina*

ten simple leaves



swamp white oak *Quercus bicolor*

three simple leaves



chinkapin or yellow chestnut oak *Quercus muhlenbergii*

three simple leaves



hackberry *Celtis occidentalis*

three simple leaves

Forests are vital renewable and productive resources for Illinois. More than half of Illinois' native flora and half of the threatened or endangered flora are found in Illinois' forests. More than 75 percent of the wildlife habitat in the state is in the forests. Forest-related industries employ nearly 65,000 people in Illinois and contribute over \$4.5 billion annually to the state's economy through value added by manufacturing.

There are four distinctive forest types found in the state: bottomland forest; upland deciduous forest; coniferous forest; and southern Illinois lowland forest. Bottomland forests are large timbered areas bordering swamps or rivers. In Illinois, they cover about 809,000 acres. Upland deciduous forests have canopied trees that lose their leaves in the fall and are areas that are not subject to flooding. Of the state's 4.3 million forest acres, 3.6 million are deciduous forest. Coniferous forests contain cone-bearing evergreen trees. Illinois has about 72,000 acres of coniferous forest, most of it in the southern third of the state. Southern Illinois lowlands cover about 11,700 acres. This area is the northernmost extension of North America's Gulf Coastal Plain.

## Species List

Kingdom Plantae  
Division Magnoliophyta  
Class Magnoliopsida

Leaves and seeds are not shown in equal proportion to actual size. All images © IDNR, Chas. J. Dees, Photographer.

### Order Fagales

#### Family Fagaceae

white oak  
swamp white oak  
shingle oak  
bur oak  
swamp chestnut oak  
pin oak  
chinkapin or yellow chestnut oak  
northern red oak  
black oak

### Order Juglandales

#### Family Juglandaceae

pecan  
shagbark hickory  
mockernut hickory  
black walnut

### Order Rosales

#### Family Rosaceae

wild black cherry

### Order Urticales

#### Family Ulmaceae

hackberry

*Quercus alba*  
*Quercus bicolor*  
*Quercus imbricaria*  
*Quercus macrocarpa*  
*Quercus michauxii*  
*Quercus palustris*  
*Quercus muhlenbergii*  
*Quercus rubra*  
*Quercus velutina*

*Carya illinoensis*  
*Carya ovata*  
*Carya tomentosa*  
*Juglans nigra*

*Prunus serotina*

*Celtis occidentalis*

## This poster was made possible by:



Illinois Department of Natural Resources  
Division of Education  
Division of Forestry  
Illinois State Museum



Illinois Department of Transportation

Design: Illinois State Museum



# Illinois TREES

## Species Descriptions

### black oak

#### *Quercus velutina*

The black oak grows in upland forests and flowers in April and May when the leaves begin to unfold. The hard, red-brown wood is used for construction, fuel, and fence posts. The black oak occurs in all regions of the state. Nationally, it grows from Maine to Minnesota and south to Texas and Florida.

**General Description:** The black oak may grow to a height of 80 feet and a diameter of about 3½ feet. Its crown is rounded or oblong with spreading branches. The trunk is straight with minimal buttressing at the base. The outer bark is black and deeply furrowed, with a yellow or orange inner bark.

**Leaf:** The leaves are arranged alternately on the stem. The simple leaf blade has seven to nine shallow lobes, each bristle-tipped. The leaf is dark green, shiny and smooth on the upper surface, and is hairy or hairy only along the veins on the lower surface. Each leaf may be up to 10 inches long and 8 inches wide with a 5-inch leafstalk.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flower has no petals. Male flowers are arranged in drooping clusters, whereas female flowers are in groups of one to four.

**Fruit:** The fruit is an acorn, which is borne singly or in pairs. The acorn is red-brown, ovoid, or ellipsoid, and not more than half enclosed by the cup. The cup has a ragged edge. The acorn may be up to ¾ inch long.



### black walnut

#### *Juglans nigra*

The black walnut occurs in all regions of the state. Its national range extends from Massachusetts to Minnesota and south to Texas and Florida. This tree grows in rich woodlands. Flowering occurs in April and May, when the leaves are partly grown. Its hard, dark-brown wood is used for making furniture, cabinets, and interior finishing. The nuts provide food for wildlife and are used in cooking.

**General Description:** A black walnut tree may grow to a height of 150 feet and a trunk diameter of 5 feet. The trunk is straight, and the crown is rounded. The bark is thick, black, and deeply furrowed. The pith in the twigs is chambered, or divided by partitions. The bud is rounded at the tip, pale brown, and hairy.

**Leaf:** The pinnately compound leaves have 15 to 23 leaflets and are arranged alternately on the stem. Each lance-shaped leaflet is up to 3½ inches long and 1½ inches wide. The leaflet is toothed along the edges, yellow-green and smooth on the upper surface, and paler and hairy on the lower surface. Leaves turn yellow in the fall.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The male flowers are arranged in yellow-green, hairy catkins; the female flowers are in small spikes. Neither male nor female flowers have petals.

**Fruit:** The spherical fruits are arranged in groups of one or two. Each green or yellow-green walnut may be up to 2 inches in diameter. The husk on the fruit is thick. The nut is very hard, oval, dark brown, and deeply ridged. The seed is sweet to the taste.



### bur oak

#### *Quercus macrocarpa*

The bur oak, also known as the mossy-cup oak, occurs statewide in Illinois. In the United States, its range stretches from Vermont to North Dakota and south to Texas, Arkansas, Tennessee, and Maryland. This tree grows almost anywhere, from dry ridges to bottomland woods. The bur oak flowers in April and May, about the time that its leaves begin to unfold. Its heavy, hard wood is used for cabinets, shipbuilding, fence posts, and fuel.

**General Description:** The bur oak may grow to 120 feet tall with a trunk diameter of 5 feet. Its bark is dark brown or yellow-brown with deep furrows. The bud is rounded or slightly pointed at the tip, yellow-brown to red-brown, and hairy.

**Leaf:** The simple leaves are arranged alternately along the stem. The leaf blade is broad at the upper end and coarsely round-toothed. The leaf has five to seven lobes. Each leaf is lance-shaped and coarsely toothed. The leaf is smooth and yellow-green on the upper surface, paler and hairy on the lower surface, and up to 8 inches long and 5 inches wide.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flower does not have petals. Male flowers are arranged in drooping catkins; female (pistillate) flowers are clustered in a small group.

**Fruit:** The fruit is an acorn, which is usually solitary. The dark brown acorn may be ovoid or ellipsoid and up to 1½ inches long. The hairy cup covers half to nearly all of the nut and has a fringe of long scales.

### chinkapin oak

#### *Quercus muhlenbergii*

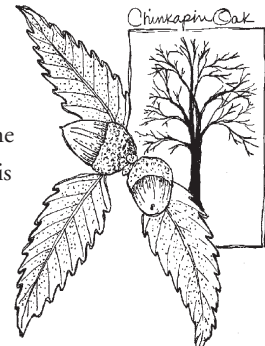
The chinkapin oak, also known as the chinquapin or yellow chestnut oak, occurs from Vermont to Minnesota and south to Nebraska, Texas, and southern Florida. In Illinois it grows in scattered locations on low, rich slopes, wooded hillides, and dry cliffs. This tree flowers in April and May. The heavy, strong wood is used for fence posts, fuel, and railroad ties.

**General Description:** The chinkapin oak may grow to 100 feet tall with a trunk diameter of 4 feet. The trunk is straight, columnar, and buttressed at the base. The bark is pale gray with scaly ridges.

**Leaf:** The simple leaves are arranged alternately on the stem. Each leaf is lance-shaped and coarsely toothed. The leaf is smooth and yellow-green on the upper surface, paler and hairy on the lower surface, and up to 8 inches long and 5 inches wide.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flower does not have petals. Male flowers are arranged in catkins; female flowers are in small groups.

**Fruit:** The fruit is an acorn. Borne in groups of one or two, each acorn is ovoid, chestnut-colored, and up to ¾ inch long. The cup has hairy scales and covers about half of the nut.



### hackberry

#### *Celtis occidentalis*

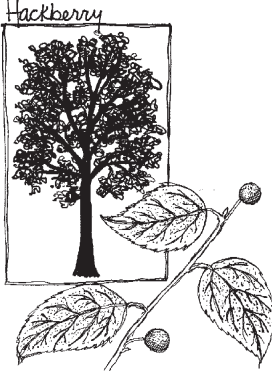
The range of the hackberry encompasses an area from Massachusetts to South Dakota and south to Oklahoma, Alabama, and Virginia. Found statewide in Illinois, this tree grows in low woodlands. The hackberry flowers in April and May after its leaves are partially grown. Its heavy, soft, pale-yellow wood is used for making fence posts and furniture.

**General Description:** The hackberry may grow to 80 feet tall with a trunk diameter of 5 feet. Its bark is gray and "warty," becoming scaly and rough as the tree ages.

**Leaf:** The simple leaves are arranged alternately on the stem. Each leaf is oval to lance-shaped and is uneven at its base. The leaf is usually coarsely toothed and is up to 6 inches long and 3 inches wide.

**Flower:** The flowers are arranged in drooping clusters (sometimes singly). The flower is green-yellow with no petals.

**Fruit:** The dark-purple fruit is nearly round, about ½ inch in diameter. Each fruit contains one seed. The fruit ripens in September and October.



### mockernut hickory

#### *Carya tomentosa*

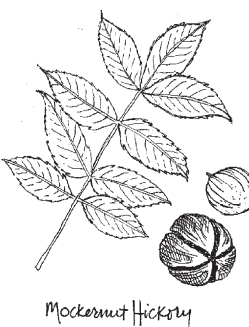
The mockernut hickory, or white hickory, occurs from Massachusetts to southern Ontario and south to Texas and Florida. In Illinois, it grows on dry, wooded slopes and shaded woods in the southern two-thirds of the state. Flowers are produced in the spring after the leaves have begun to unfold. The wood of this tree is used for tool handles, fence posts, and as fuel.

**General Description:** This hickory tree may grow to a height of 90 feet with a trunk diameter of 3 feet. The crown is rounded. The dark-gray bark has shallow furrows that often produce a diamond-shaped pattern. The red-brown, hairy buds are about 1 inch long.

**Leaf:** The pinnately compound leaves are arranged alternately along the stem. Each leaf has five to nine leaflets, and each leaflet may be up to 8 inches long and 4 inches wide. Leaflets are finely toothed. The yellow-green leaflet is hairy on the upper surface and paler and hairy on the lower surface. The leafstalks and twigs are also hairy.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flowers do not have petals. The male flowers are arranged in drooping catkins; female flowers are in groups of two to five.

**Fruit:** The fruit is generally spherical, about 2 inches in diameter with a red-brown husk. The red-brown nut has a small, sweet seed.



### northern red oak

#### *Quercus rubra*

Occurring statewide in Illinois, the range of the northern red oak extends from New Brunswick to Minnesota and south to Alabama. It grows in rich, upland woods, along river banks, and on well-drained slopes. The northern red oak flowers in April and May as its leaves begin to unfold. Its hard, heavy wood is used for interior finishing, furniture, fuel, and fence posts.

**General Description:** The northern red oak may grow to a height of 80 feet and a trunk diameter of 3 feet. Its bark is gray to dark gray with wide ridges.

**Leaf:** The simple leaves are arranged alternately on the stem. Each leaf has seven to 11 shallow lobes, each tipped by bristles. Leaves are dark green and smooth or a little hairy on the upper surface, and paler and smooth or with hairs along the veins on the lower surface. Leaves are up to 10 inches long and 6 inches wide on a 2-inch leafstalk.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flowers do not have petals. Male flowers are arranged in drooping catkins; female flowers are in groups of one to three.

**Fruit:** Fruits are acorns occurring solitary or in pairs. Each pale-brown acorn is ovoid and up to 1½ inches long; the cup is red-brown with tight scales and covers less than a fourth of the seed.



### pecan

#### *Carya illinoensis*

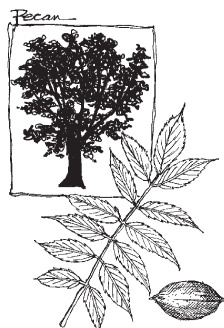
The pecan tree grows from Iowa and Illinois, south to Texas and Alabama, and in Mexico. Its range in Illinois includes the southern three-fourths of the state and areas along the Mississippi River. This tree grows in moist woods, particularly along rivers. The pecan flowers in April and May when its leaves are partly grown. Its hard, heavy wood is used for interior finishing, furniture, fuel, and tool handles. It is extensively cultivated for its nuts, and cultivated varieties have nuts about twice as large as those of wild trees. Pecans are a good source of food for wildlife.

**General Description:** The pecan tree may grow to a height of 150 feet and a trunk diameter of 3 feet. The tree's rounded crown spreads widely. Its trunk is relatively short and straight. Its bark is red-brown with platelike scales.

**Leaf:** The pinnately compound leaves are arranged alternately along the stem. Each leaf has nine to 19 lance-shaped leaflets. Leaflets are double-toothed, yellow-green, smooth on the upper side and paler and smooth or hairy on the lower side. Leaflets are up to 8 inches long and 3 inches wide.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The male flowers are arranged in drooping, yellow-green catkins while the female flowers are in shorter spikes. Neither type of flower has petals.

**Fruit:** The fruit is an ellipsoid nut that is pointed at the tip and up to 2 inches long and 1 inch wide. Its thin husk has four wings. The nut is red-brown with black markings and has a thin shell. Its seed is sweet to the taste.



### pin oak

#### *Quercus palustris*

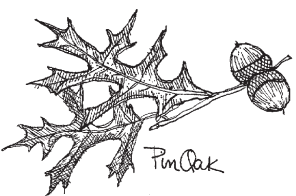
The pin oak grows in floodplain woods, along streams, at the edges of swamps, and near ponds throughout Illinois. Its range extends from Massachusetts to Iowa and south to Oklahoma and Virginia. This tree flowers from April through May. Its acorns are a good source of food for many species of wildlife. Its wood is heavy, hard, coarse-grained, and pale brown and is used for general construction, fuel, and fence posts. The pin oak is often planted as an ornamental.

**General Description:** The pin oak may grow to a height of 75 feet. The narrowly rounded or oblong crown is supported by a straight trunk. Trunk diameter is usually less than 3 feet. Pinlike stubs and drooping lower branches are a distinctive trait of this species. The bark is light or dark brown with little furrowing.

**Leaf:** The leaves are simple, up to 7 inches long and divided more than halfway to the middle into five to seven lobes, each tipped with a bristle. Leaves are arranged alternately along the branch. Each slender, usually smooth, leafstalk may be up to 2 inches long.

**Flower:** Male (staminate) flowers occur on slender, drooping spikes; female (pistillate) flowers occur in clusters. The flowers are small, with male and female flowers are separate but on the same tree.

**Fruit:** The pale-brown acorns grow in clusters of one to four and are up to ½ inch wide. Acorns may have dark lines. The acorn cup encloses less than a fourth of the acorn and is thin, saucer-shaped, and red-brown, with fine hairs.



### shagbark hickory

#### *Carya ovata*

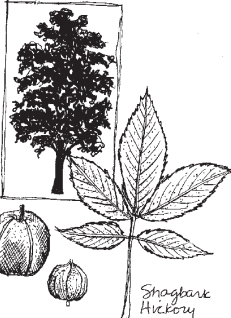
The shagbark hickory occurs statewide in Illinois. It grows in rich, upland woods from Maine to Minnesota and south to Texas and Florida. This species flowers after its leaves begin to unfold, during April and May. The heavy, hard wood is used for tool handles, fuel, hickory-smoked cooking, and baseball bats. The nuts provide food for wildlife and are used in cooking.

**General Description:** The shagbark hickory may grow to a height of 80 feet and a trunk diameter of nearly 4 feet. Its crown is rounded with some branches hanging down. Its gray bark separates into long, shredding scales, giving the tree a shaggy appearance.

**Leaf:** The pinnately compound leaves are arranged alternately along the stem. Each leaf contains five to seven ovate or lance-shaped leaflets. Each finely toothed leaflet may grow to 10 inches long and 5 inches wide. Leaves are yellow-green or green on the smooth upper surface and paler and smooth or somewhat hairy on the lower surface.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flower has no petals. Male flowers are arranged in drooping catkins; female flowers are in groups of two to five.

**Fruit:** The fruit is a spherical or ovoid nut, about 2 inches wide. The husk is yellow-green to red-brown, about ½ inch thick. The four-angled, white nut is sweet.



### shingle oak

#### *Quercus imbricaria*

Shingle oak occurs throughout Illinois as well as from New Jersey to Nebraska and south to Kansas, Arkansas, and South Carolina. This species grows in field edges and woods and sometimes on limestone cliffs. Flowers are produced from April through May. The fruits, leaves, stems, and buds of this tree provide a source of food for some wildlife species. Shingle oak wood is used for roofing shingles and general construction. The red-brown wood is hard and heavy.

**General Description:** A shingle oak tree may grow to 70 feet tall with a trunk diameter of 3 feet. Its crown is rounded or oblong with many branches. The trunk is straight and covered with dark brown, deeply furrowed bark. A cross-section of a red-brown twig reveals a star-shaped pith.

**Leaf:** Leaves are arranged alternately along the twigs. The simple, elliptical leaves are up to 6 inches long and 2 inches wide. Each leaf is dark green, smooth, and shiny on the upper surface, and paler and hairy on the lower surface. The shingle oak and willow oak are the only two oak species that have leaves without any teeth or lobes. The hairy leafstalk is approximately ½ inch long.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but develop on the same tree. The flowers are tiny and lack petals. Male flowers are clustered in thin, yellow catkins; female flowers are borne in small clusters.

**Fruit:** The fruit is a dark brown, nearly spherical acorn, which is borne solitary or in pairs, on a short stalk. The red-brown, slightly hairy cup encloses less than half of the seed.



### swamp chestnut oak

#### *Quercus michauxii*

The range of the swamp chestnut oak is from New Jersey to Missouri and south to Texas and Florida, including the southern third of Illinois. Growing in low woods and swamps, this tree flowers from April through May. The wood is hard, heavy, and strong. It is used for cabinets, fence posts, and interior finishing.

**General Description:** The swamp chestnut oak, also known as the basket oak or cow oak, may attain a height of 100 feet and a trunk diameter of 6 feet. The crown is rounded. The bark is gray and scaly. The hairy buds are pointed, about ¼ inch long.

**Leaf:** The simple leaves are arranged alternately along the stem. Each oval leaf is pointed at the tip and tapering at the base. A leaf may be 10 inches long and 6 inches wide. The thick leaf has scalloped edges, a green upper surface, and a white, hairy lower surface. The hairy leafstalk may be 1½ inches long.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flowers have no petals. Male flowers occur in catkins; female flowers grow in clusters.

**Fruit:** The fruit is a brown acorn that may grow to 1½ inches long. The ovoid or ellipsoid acorns grow singly or in pairs and may or may not have a stalk. The thick, hairy cup encloses the acorn for about a third of its length.



### swamp white oak

#### *Quercus bicolor*

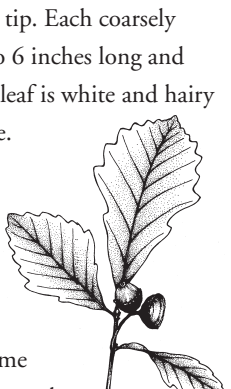
The swamp white oak occurs statewide in Illinois. The range of this species extends from Maine to Minnesota and south to Tennessee and northern Alabama. It grows in low woods and swamps, flowering from April through May. This tree's wood is hard, heavy, and strong. It is used for cabinets, fence posts, and interior finishing.

**General Description:** This tree may grow to a height of 70 feet with a trunk diameter of 3 feet. Its crown is broad and rounded. The bark is gray-brown, furrowed, and flaky. Buds are clustered at the twig tips. Each yellow-brown bud is about ½ inch long.

**Leaf:** The simple leaves are arranged alternately along the stem. The leaf blade is broadest near the tip. Each coarsely toothed leaf is up to 6 inches long and 4 inches wide. The leaf is white and hairy on the lower surface.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. Flowers are tiny and lack petals. Male flowers are in drooping catkins; female flowers are in groups of two to four.

**Fruit:** The fruit is an acorn. Acorns grow in pairs on stalks 1 inch or longer. The pale brown, ovoid nut is 1 to 1½ inches long. The thick, hairy cup encloses a third of the acorn.



### white oak

#### *Quercus alba*

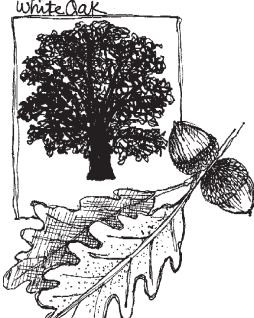
White oak occurs from Maine to Minnesota and south to Texas and Florida. It grows in moist to dry woods. White oak is the state tree of Illinois, and it occurs statewide. This species flowers in April and May as its leaves begin to unfold. The heavy, strong wood is used for interior finishing, cabinets, general construction, fence posts, and fuel.

**General Description:** The white oak may grow to a height of 100 feet and a trunk diameter of 3 feet. Its crown is broad with horizontal branches. The bark is light gray and scaly.

**Leaf:** The simple leaves are arranged alternately along the stem. Each leaf has seven to nine rounded lobes. The upper surface is green and smooth while the lower surface is paler and smooth. A leaf may grow to 10 inches long and about 5 inches wide. Leaves turn yellow to red in the fall. Leaves on the same tree may vary considerably in their appearance.

**Flower:** Male (staminate) and female (pistillate) flowers are separate but occur on the same tree. The tiny flowers do not have petals. Male flowers are arranged in drooping, yellow catkins; the red female flowers are in small groups.

**Fruit:** The fruit is an acorn, which occurs singly or in pairs on the stem. The acorn is oblong, up to ¾ inch long, green to green-brown, and shiny. The acorn is not borne on a stalk. The yellow-brown cup has warty scales and covers a fourth of the seed.



### wild black cherry

#### *Prunus serotina*

Wild black cherry occurs throughout Illinois. Its range extends from Nova Scotia to Ontario and south to Texas and Florida. It grows in wood edges, fencerows, thickets, and roadsides. Flowers are produced in May. The red-brown wood is lightweight, hard, and strong, and is used to make cabinets and furniture. The fruit serves as a food source for wildlife species, which disperse the undigested seeds with their feces.

**General Description:** The wild black cherry may attain a height of 75 feet and a trunk diameter of up to 3 feet. Its crown is rounded. The thin, smooth, red-brown bark of the young tree becomes black and scaly as the tree ages.

**Leaf:** Leaves are arranged alternately on the stem. Each simple, oblong, or oval leaf is up to 6 inches long. The green, smooth, shiny leaf is finely toothed. The leafstalk is about 1 inch long with one or more red glands near the tip.

**Flower:** Small white flowers with five petals occur in drooping clusters up to 6 inches long.

**Fruit:** The fleshy edible fruit is red purple to black, about ¾ inch in diameter, and contains a single seed. The cherries make excellent jelly.



## Forest Facts

The white oak, *Quercus alba*, is the state tree of Illinois. Occurring throughout the state, the white oak is an excellent shade tree. Its wood is used for lumber, veneer, barrels, flooring, furniture, and construction.

Known for its strength, white oak wood was used in the construction of the *U.S.S. Constitution*. During a naval battle in the War of 1812, soldiers reported that cannon balls bounced off the hull of this ship, resulting in its nickname "Old Ironsides."

Ninety-eight percent of Illinois forests are composed of hardwood species, and 43 percent of the hardwood trees are white and red (*Quercus rubra*) oak.

More than 250 species of trees (native and introduced) have been recorded in Illinois.

Illinois forests provide habitat for more than 420 vertebrate species.

About 120 bird species use Illinois forests for their primary nest sites.

In 1820, forests covered 13.8 million acres in Illinois (38 percent of the state). The United States Forest Service (USFS) 1998 inventory estimated 4.9 million acres of forests (14 percent of the state) in Illinois. The USFS estimated that between 1962 and 1998 forest cover in Illinois increased by more than 10 percent.

Arbor Day is a nationally celebrated observance that encourages tree planting and tree care. Founded by J. Sterling Morton in Nebraska in 1872, National Arbor Day is celebrated each year on the last Friday in April. <http://www.arborday.org/>

## Correlation to Illinois Learning Standards

Information provided on this poster may be useful to educators when teaching about plants, trees, seeds, leaves, adaptations, Illinois species, and other topics. Illinois Learning Standards and Benchmarks: Science 12.A.1a, 12.A.1b, 12.A.2a, 12.B.1a, 12.B.2b; Social Science 17.A.2a.

## Tree Clues

Use this section to gather clues about a specific deciduous tree and to identify the species in a field guide to the trees. (Deciduous: shedding leaves at the end of the growing season.)

### Tree Shape



round



oval



pyramidal



v-shaped

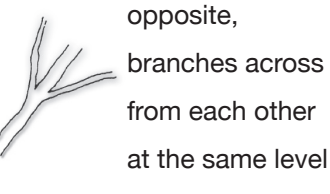


columnar

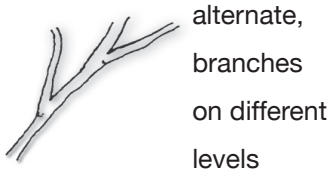


irregular

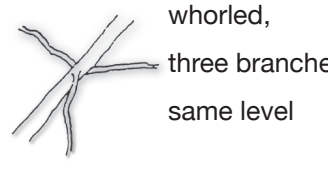
### Branching Patterns



opposite, branches across from each other at the same level



alternate, branches on different levels



whorled, three branches at same level

### Bark

color:  
brown  
gray  
black  
red-brown  
white

texture:  
smooth  
ridged  
deep  
shallow

pattern:  
diamond  
horizontal  
vertical

attachment:  
tight  
loose

### Leaves

#### attachment:

simple, single blade



compound, more than one blade



#### arrangement:



opposite



alternate

#### margins:



lobed



entire



toothed

#### shape:

triangular  
heart-shaped

egg-shaped  
five-pointed star

mitten-shaped  
lance-shaped

round  
cross-shaped

fan-shaped  
pear-shaped

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## Agency Resources

More information about trees is available from the Illinois Department of Natural Resources (IDNR).